

**REMARKS/ARGUMENTS**

Reconsideration of the application is requested.

Claims 1-21 are now in the application. Claims 1 and 17-19 have been amended. Claims 20-21 have been added.

In the section entitled "Claim rejections - 35 USC § 102" on pages 2-5 of the above-mentioned Office action, claims 1-4, 7, 9-12, and 14-19 have been rejected as being anticipated by Akasaka et al. (US 6,162,741) under 35 U.S.C. § 102(b).

In the section entitled "Claim rejections - 35 USC § 103" on pages 5-8 of the above-mentioned Office action, claims 5-6 have been rejected as being unpatentable over Akasaka et al. under 35 U.S.C. § 103(a); claims 8 and 13 have been rejected as being unpatentable over Akasaka et al. and further in view of Wolf et al. ("Silicon Processing for the VLSI Era Volume 1: Process Technology," pp. 57 & 208-209, Lattice Press, Sunset Beach, CA) under 35 U.S.C. § 103(a)

The rejections have been noted and claim 1 has been amended in an effort to even more clearly define the invention of the instant application. Support for the changes is found in Fig. 3 on page 16, lines 6-9 of the specification.

Before discussing the prior art in detail, it is believed that a brief review of the invention as claimed, would be helpful.

Claim 1 calls for, inter alia:

subjecting the metallization structure to a nonaqueous hydrogen-containing substance, before and after the treatment step.

Figs. 4-5 of Akasaka et al. in connection with column 8, lines 40-43 disclose that before the treatment with a mixture of hydrogen and water (step 7) a treatment with hydrogen and nitrogen is carried out (step 4). This treatment is carried out on a metallization structure as it is depicted in Fig. 4A and it results in a selective side wall oxidation resulting in a metallization structure as shown in Fig. 4B.

However, Akasaka et al. do not disclose that after the treatment of the metallization structure with the  $H_2/H_2O$ -mixture the metallization structure should be treated with a non-aqueous hydrogen-containing substance.

Clearly, Akasaka et al. do not show "subjecting the metallization structure to a nonaqueous hydrogen-containing substance, before and after the treatment step," as recited in claim 1 of the instant application.

Claim 1 is, therefore, believed to be patentable over Akasaka et al. and since all of the dependent claims are ultimately dependent on claim 1, they are believed to be patentable as well.

New claims 20-21 have been added. Claim 20 recites that during the treatment step (with the water/hydrogen mixture), a supply of the heat is set in such a way that the temperature of the metallization structure is increased from a defined temperature to a process temperature. Fig. 5 of Akasaka et al. clearly shows that the process temperature constantly remains at 800°C during the H<sub>2</sub>/H<sub>2</sub>O treatment step 7. It is also not obvious for a person skilled in the art to raise the temperature during step 7 from 800°C to a temperature higher than 800°C.

Claim 21 recites that the metallization structure is acted on by a non-aqueous hydrogen containing substance immediately before, and if appropriate, after the treatment step. It can be seen from Fig. 5 of Akasaka et al. that the metallization structure is treated with H<sub>2</sub> + N<sub>2</sub> in step 4 and afterwards the metallization structure is treated with N<sub>2</sub> in step 5 and step 6 and afterwards the metallization structure is treated with H<sub>2</sub> +

H<sub>2</sub>O + H<sub>2</sub>. Therefore, the metallization structure is treated with the non-aqueous hydrogen-containing substance (step 4) not immediately before the treatment with the H<sub>2</sub>/H<sub>2</sub>O mixture (step 7). It is not obvious for a person skilled in the art to omit the steps 5 and 6 of the N<sub>2</sub> treatment.

Therefore, new claims 20-21 are believed to be patentable over the cited references.

In view of the foregoing, reconsideration and allowance of claims 1-21 are solicited.

In the event the Examiner should still find any of the claims to be unpatentable, counsel would appreciate a telephone call so that, if possible, patentable language can be worked out.

The fee in the amount of \$50.00 for one additional claim in excess of twenty is enclosed herewith.

If an extension of time for this paper is required, petition for extension is herewith made. Please charge any fees which might be due with respect to 37 CFR Sections 1.16 and 1.17 to

Applic. No.: 10/694,593  
Amdt. Dated August 1, 2005  
Reply to Office action of May 11, 2005

the Deposit Account of Lerner and Greenberg, P.A., No. 12-1099.

Respectfully submitted,

  
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August 1, 2005

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